Author Index

Afridi, S.M.M.R.K., *see* Ansari, S.A. et al.
Andrade, F.H., *see* Slafer, G.A. et al.
Ansari, S.A., Afridi, S.M.M.R.K. and Khan, N.A.
Response of field-grown lentil to pre-sowing seed enrichment with pyridoxine 45
Baiquni, H., *see* Fukai, S. et al.
Bravdo, B.-A., *see* Ephrah J.E. et al.
Bray, R.A.
Book review of *Plant Resources of South-East Asia - A Selection*, by E. Westphal and P.C.M. Jansen (Editors) 76
Broadbent, F.E., *see* De Datta, S.K. and Broadbent, F.E.
Brooking, I.R.
Maize ear moisture during grain-filling, and its relation to physiological maturity and grain drying 55
Brouder, S.M. and Cassman, K.G.
Root development of two cotton cultivars in relation to potassium uptake and plant growth in a vermiculitic soil 187
Carberry, P.S., *see* Muchow, R.C. and Carberry, P.S.
Cassman, K.G., *see* Brouder, S.M. and Cassman, K.G.
Chai, E.Y., *see* Ladyman, J.A.R. et al.
Choenthong, S., *see* Fukai, S. et al.
Croy, L.I., *see* Heitholt, J.J. et al.
De Datta, S.K. and Broadbent, F.E.
Nitrogen-use efficiency of 24 rice genotypes on an N-deficient soil 81
Ephrath, J.E., Marani, A. and Bravdo, B.-A.
Effects of moisture stress on stomatal resistance and photosynthetic rate in cotton (*Gossypium hirsutum*).
1. Controlled levels of stress 117
Fukai, S., Searle, C., Baiquni, H., Choenthong, S. and Kywe, M.
Growth and grain-yield of contrasting barley cultivars under different plant densities 239
Gallagher, J.N., *see* Husain, M.M. et al.
Gerik, T.J., Rosenthal, W.D. and Seavey, W.F.
Phenology, early growth, and yield of planted and ratoon grain sorghum 205
Gonzalez, A.R., *see* White, J.W. and Gonzalez, A.R.
Goss, J.R., *see* Ladyman, J.A.R. et al.
Gulliver, B.
Book review of *Manual of Crop Experimentation*, by Pearce et al. 79
Harris, L.C., *see* Pfeiffer, T.W. and Harris, L.C.
Heitholt, J.J., Croy, L.I., Maness, N.O. and Nguyen, H.T.
Nitrogen partitioning in genotypes in winter wheat differing in grain N concentration 133
Husain, M.M., Reid, J.B., Othman, H. and Gallagher, J.N.
Growth and water use of faba beans (*Vicia faba*) in a sub-humid climate.
I. Root and shoot adaptations to drought stress 1
Kang, M.S., Sosa, O., Jr. and Miller, J.D.
Genetic variation and advance for rind hardness, flowering and sugar yield traits in sugarcane 69
Khan, N.A., *see* Ansari, S.A. et al.
Kresovich, S.
Book review of *Quantitative Genetics in Maize Breeding*, by A.R. Hallauer and J.B. Miranda 78

Kywe, M., *see* Fukai, S. et al.
Ladyman, J.A.R., Goss, J.R., Walhood, V.T. and Chai, E.Y.
Activity of a novel chemical hybridizing agent in field-grown cotton 177
Maness, N.O., *see* Heitholt, J.J. et al.
Marani, A., *see* Ephrath J.E. et al.
Martin, R.C., Voldeng, H.D. and Smith, D.L.
Intercropping corn and soybeans for silage in a cool-temperate region: Yield, protein and economic effects 295
Miller, J.D., *see* Kang, M.S. et al.
Muchow, R.C.
Book review of *An Introduction to the Physiology of Crop Yield*, by R.K.M. Hay and A.J. Walker 75
Effect of high temperature on grain-growth in field-grown maize 145
Muchow, R.C. and Carberry, P.S.
Phenology and leaf-area development in a tropical grain sorghum 221
Mutsaers, H.J.W. and Walker, P.
Farmers' maize yields in S.W. Nigeria and the effect of variety and fertilizer: An analysis of variability in on-farm trials 265
Nguyen, H.T., *see* Heitholt, J.J. et al.
Nielsen, D.C.
Scheduling irrigations for soybeans with the crop water stress index (CWSI) 103
Othman, H., *see* Husain, M.M. et al.
Pfeiffer, T.W. and Harris, L.C.
Soybean yield in delayed plantings as affected by alleles increasing vegetative weight 93
Rao, M.R. and Singh, M.
Productivity and risk evaluation in contrasting intercropping systems 279
Reid, J.B.
Growth and water use of faba beans (*Vicia faba*) in a sub-humid climate. II. Simulation analysis of crop responses to drought 19
see also Husain, M.M. et al.
Rosenthal, W.D., *see* Gerik, T.J. et al.
Saka, V.W.
Evaluation of common bean (*Phaseolus vulgaris*), groundnut (*Arachis hypogea*) and pigeon pea (*Cajanus cajan*) for resistance to root-knot nematodes (*Meloidogyne* spp.) 39
Satorre, E.H., *see* Slafer G.A. et al.
Searle, C., *see* Fukai, S. et al.
Seavey, W.F., *see* Gerik, T.J. et al.
Singh, M., *see* Rao, M.R.
Slafer, G.A., Andrade, F.H. and Satorre, E.H.
Genetic-improvement effects on pre-anthesis of physiological attributes related to wheat grain-yield 255
Smith, D.L., *see* Martin, R.C. and Voldeng, H.D.
Sosa, O., Jr., *see* Kang M.S. et al.
Voldeng, H.D., *see* Martin, R.C. and Smith, D.L.
Walhood, V.T., *see* Ladyman, J.A.R. et al.
Walker, P., *see* Mutsaers, H.J.W.
White, J.W. and Gonzalez, A.
Characterization of the negative association between seed yield and seed size among genotypes of common bean 159

Subject Index

Alleles, *see* Genetics
Analytical methods
Genetic variation and advance in sugarcane 69
Arachis
Common bean, groundnut and pigeon pea resistance to root-knot nematodes 39
Productivity and risk evaluation in contrasting intercropping systems 279
Asia, South-East
Plant Resources of South-East Asia (book review) 76
Barley, *see Hordeum*
Bean, *see Phaseolus*
see also Vicia
Cajanus
Common bean, groundnut and pigeon pea resistance to root-knot nematodes 39
Productivity and risk evaluation in contrasting intercropping systems 279
Corn, *see Zea*
Cotton, *see Gossypium*
Crop management
Soybean yield in delayed plantings as affected by alleles increasing vegetative weight 93
Growth of barley under different plant densities 239
Crop water stress index, *see* Water dynamics
Crops, general
Plant Resources of South-East Asia (book review) 76
Manual of Crop Experimentation (book review) 79
Cultivar differences, *see* Variety trials
Drought, *see* Water regime
Economics
Intercropping corn and soybeans for silage yield, protein and economic effects 295
Environmental conditions, effects of
Effect of high temperature on growth in maize 145
Fertilizers, *see* Nutrient dynamics
Genetics
Quantitative Genetics in Maize (book review) 78
Soybean yield in delayed plantings as affected by alleles increasing vegetative weight 93
Genetic improvement of wheat yield 255
Genotype, effect on yield, *see* Variety trials
Glycine
Scheduling irrigations for soybeans with the crop water stress index 103
Intercropping corn and soybeans for silage: Yield, protein and economic effects 295
Gossypium
Effects of moisture stress on stomatal and photosynthetic rate in cotton.
1. Controlled levels of stress 117
A novel hybridizing agent in cotton 177
Root development of cotton in relation to potassium uptake and growth in vermiculitic soil 187
Groundnut, *see Arachis*
Growth substances
Response of lentil to seed enrichment with pyridoxine 45
A novel hybridizing agent in cotton 177

Hordeum
Growth of barley under different plant densities 239
Hybridizing agents, *see* Growth substances
Intercropping, *see* Multiple cropping
Irrigation, *see* Water dynamics
Lens
Response of lentil to seed enrichment with pyridoxine 45
Lentil, *see Lens*
Maize, *see Zea*
Meloidogyne, see Pests, weeds and diseases
Millett, *see Pennisetum*
Modelling
Water use of faba beans in a sub-humid climate.
II. Simulation analysis of response to drought 19
Moisture content, *see* Water dynamics
Multiple cropping
Intercropping corn and soybeans for silage: yield, protein and economic effects 295
Nematodes, *see* Pests, weeds and diseases
Nitrogen, *see* Nutrient dynamics
Nutrient dynamics
Nitrogen-use efficiency of 24 rice genotypes on N-deficient soil 81
Nitrogen partitioning in genotypes of wheat differing in grain N 133
Root development of cotton in relation to potassium uptake and growth in vermiculite ... 187
Maize in Nigeria: Effect of variety and fertilizer 265
Oryza
Nitrogen-use efficiency of 24 genotypes on N-deficient soil 81
Pea, pigeon, *see Cajanus*
Penniseum
Productivity and risk evaluation in contrasting intercropping systems 279
Pests, weeds and diseases
Common bean, groundnut and pigeon pea resistance to root-knot nematodes 39
Phaseolus
Common bean, groundnut and pigeon pea resistance to root-knot nematodes 39
Negative association between seed yield and seed size of common bean 159
Phenology
Phenology, growth, and yield of planted and ratoon grain sorghum 205
Phenology and leaf-area development in a tropical grain sorghum 221
Photosynthesis, *see* Physiology
Physiology
Water use of faba beans in a sub-humid climate.
I. Root and shoot adaptations to drought stress 1
Physiology of crop yield 75
Effects of moisture stress on stomatal and photosynthetic rate in cotton.
1. Controlled levels of stress 117
Planting, timing of, *see* Crop management
Planting arrangement, *see* Crop management
Potassium, *see* Nutrient dynamics
Pyridoxine, *see* Growth substances
Ratoon
Phenology, growth, and yield of planted and ratoon grain sorghum 205

Resistance, *see* Pests, weeds and diseases
Rice, *see Oryza*
Rind hardness, *see* Analytical methods
Risk evaluation
Productivity and risk evaluation in contrasting intercropping systems 279
Root dynamics
Root development of cotton in relation to potassium uptake and growth in vermiculite ... 187
Saccharum
Genetic variation and advance in sugarcane 69
Seed treatment
Response of lentil to seed enrichment with pyridoxine 45
Seed dynamics
Negative association between seed yield and seed size of common bean 159
Silage
Intercropping corn and soybeans for silage: yield, protein and economic effects 295
Simulation, *see* Modelling
Soil dynamics
Nitrogen-use efficiency of rice on N-deficient soil 81
Soil conditions
Root development of cotton in relation to potassium uptake and growth in vermiculitic soil 187
Sorghum
Phenology, growth, and yield of planted and ratoon grain sorghum 205
Phenology and leaf-area development in a tropical grain sorghum 221
Productivity and risk evaluation in contrasting intercropping systems 279
Soybean, *see Glycine*
Stomata, *see* Physiology
Sugarcane, *see Saccharum*
Temperature, *see* Environmental conditions, effects of
Triticum
Nitrogen partitioning in genotypes of wheat differing in grain N 133
Genetic improvement of grain yield 255
Variety trials
Common bean, groundnut and pigeon pea resistance to root-knot nematodes 39
Genetic variation and advance in sugarcane 69
Nitrogen-use efficiency of rice on N-deficient soil 81
Soybean yield in delayed plantings as affected by alleles increasing vegetative weight 93
Nitrogen partitioning in genotypes of wheat differing in grain N 133
Negative association between seed yield and seed size of common bean 159
Root development of cotton in relation to potassium uptake and growth in vermiculitic soils 187
Phenology, growth, and yield of planted and ratoon grain sorghum 205
Growth of barley under different plant densities 239
Genetic improvement of wheat yield 255
Maize in Nigeria: Effect of variety and fertilizer 265
Vicia
Water use of faba beans in a sub-humid climate.
I. Root and shoot adaptations to drought stress 1
II. Simulation analysis of response to drought 19

Water dynamics
Water use of faba beans in a sub-humid climate.
II. Simulation analysis of response to drought 19
Maize moisture during grain-filling, and its relation to maturity and grain-drying 55
Scheduling irrigations for soybeans with the crop water stress index 103
Effects of moisture stress on stomatal and photosynthetic rate in cotton.
1. Controlled levels of stress 117
Wheat, *see Triticum*
Zea
Maize moisture during grain-filling, and its relation to maturity and grain-drying 55
Quantitative Genetics in Maize (book review) 78
Effect of high temperature on growth in maize 145
Maize in Nigeria: Effect of variety and fertilizer 265
Intercropping corn and soybeans for silage: yield, protein and economic effects 295